

SURFACE WATER/INFLUENCED GROUNDWATER MONTHLY OPERATION REPORT

IOWA DNR WATER SUPPLY SECTION

Basic Information

S/EP: _____

System Name: _____

PWSID #: _____

Month: _____

Year: _____

Day	Operating Hours	Pumpage		Fluoride		Raw Turbidity	Settled Turbidity (individual sed basin)							
	Number of hours the plant operated per day.	Raw in 1,000s Gallons Per Day	To System in 1,000s Gallons Per Day	Quantity Used in lbs. or gls. (circle one)	Finished Water (mg/L)	Highest Daily Reading (NTU)	Highest Daily Reading Sed 1 (NTU)	Highest Daily Reading Sed 2 (NTU)	Highest Daily Reading Sed 3 (NTU)	Highest Daily Reading Sed 4 (NTU)				
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														
31														
Total														
Avg														
Max														
Min														

I certify that I am familiar with the information contained in this report and that the information is true, complete, and accurate.

DRC Operator or Designee's Signature: _____

Certificate #: _____

Grade: _____

Date: _____

SURFACE WATER/INFLUENCED GROUNDWATER MONTHLY OPERATION REPORT

IOWA DNR WATER SUPPLY SECTION

Disinfection/Oxidation Data Page

S/EP: _____

System Name: _____

PWSID #: _____

Month: _____

Year: _____

Day	Chlorine Residual								CT	Chlorine Dioxide	Chlorite	Quantity of Disinfectant Used	
	Source/Entry Point (S/EP)				Distribution								
	Number of Tests Taken*	Specify Free (F) or Total (T)	Lowest Measured Residual (mg/L)	Continuous Hours Less than 0.3 mg/L Free or 1.5 mg/L Total	Number of Tests Taken	Lowest Measured Residual (mg/L) Circle One T or F	Number with Undetected Residual	Highest Measured Residual (mg/L)				Ratio of CT Obtained to CT Required	At S/EP** (mg/L)
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
Total													
Avg													
Max													
Min													

*If continuous monitoring of chlorine is provided, enter "C" in the space provided.

**If chlorine dioxide MRDL of 0.8 mg/L or daily chlorite MCL of 1.0 mg/L is exceeded, then "Chlorine Dioxide/Chlorite Supplemental Monitoring Form" must be completed.

I certify that I am familiar with the information contained in this report and that the information is true, complete, and accurate.

DRC Operator or Designee's Signature: _____

Certificate #: _____ Grade: _____ Date: _____

SURFACE WATER/INFLUENCED GROUNDWATER MONTHLY OPERATION REPORT

IOWA DNR WATER SUPPLY SECTION

Turbidity Data Page 1 of 2

S/EP: _____

System Name: _____

PWSID #: _____

Month: _____

Year: _____

Day	Combined Filter Effluent			Individual Filter Effluent													
	Number of Readings Taken **	Number of Readings >0.3 NTU	Highest Daily Reading (NTU)	#1			#2			#3			#4				
				Highest Consecutive NTU Results @ 4 Hours After Start Up or Backwash	Daily Highest (NTU)	# of Consec Results >1.0 NTU	Consecutive NTU Results @ 4 Hours After Start Up	Daily Highest (NTU)	# of Consec Results >1.0 NTU	Highest Consecutive NTU Results @ 4 Hours After Start Up or Backwash	Daily Highest (NTU)	# of Consec Results >1.0 NTU	Highest Consecutive NTU Results @ 4 Hours After Start Up or Backwash	Daily Highest (NTU)	# of Consec Results >1.0 NTU		
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	
25																	
26																	
27																	
28																	
29																	
30																	
31																	
Total																	
Avg																	
Max																	
Min																	

**If continuous monitoring of turbidity is provided, measurements must be recorded at equal time intervals at least once every four hours or hourly for plants w/pop. >100,000.

I certify that I am familiar with the information contained in this report and that, to the best of my knowledge, the information is true, complete, and accurate.

DRC Operator or Designee's Signature: _____

Certificate #: _____ Grade: _____ Date: _____

SURFACE WATER/INFLUENCED GROUNDWATER MONTHLY OPERATION REPORT

IOWA DNR WATER SUPPLY SECTION

Summary Page 1 of 2

S/EP: _____
 SYSTEM NAME: _____ PWSID #: _____ MONTH: _____ YEAR: _____

1. DISINFECTANT RESIDUAL ENTERING THE DISTRIBUTION SYSTEM:

- a. How many times did the residual disinfectant concentration of the water ENTERING the distribution system fall below 0.3 mg/L of free chlorine, or 1.5 mg/L of total chlorine for more than 4 hours?
- b. Date and duration of each occurrence:

Date	Duration (Hours)	Date and Time DNR Notified	Person Notified

2. DISINFECTANT RESIDUAL WITHIN THE DISTRIBUTION SYSTEM:

- a. Number of times that the disinfectant residual was measured in the system:
- b. Number of times the disinfectant residual **WAS NOT** measured but where the HPC was measured:
- c. Number of times the disinfectant residual was measured but **NOT** detected and no HPC was measured:
- d. Number of times the disinfectant residual was measured but **NOT** detected and the HPC was greater than 500/ml:
- e. Number of times where the disinfectant residual **WAS NOT** measured and the HPC was greater than 500/ml:

From above Calculate $V = [(C+D+E) / (A+B)] \times 100\%$: %

For last month, V was: %

(V must not exceed 5% for any two consecutive months)

3. CALCULATION OF MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL):

Calculation of maximum disinfectant residual is based on the monthly average of the **Total** chlorine residual measured at the same time compliance bacterial samples are collected (includes repeat/check samples but excludes specials) or include the S/EP chlorine monitoring. The RAA must be calculated at the end of each calendar quarter and include the previous 12 months.

	1	2	3	4	5	6	7	8	9	10	11	12
Actual Month/Year:												
Monthly Avg.:												
Running Annual Average (RAA)*:												

*Should be less than the MRDL of 4.0 mg/L

4. FINISHED WATER TURBIDITY:

- a. Number of turbidity readings taken:
- b. Number of Readings greater than 0.3 NTU:
- c. Percent of readings less than or equal to 0.3NTU: %
- d. Specify date and duration of any turbidity measurement greater than 1 NTU:

Date	Duration (Hours)	Date and Time DNR Notified	Person Notified

I certify that I am familiar with the information contained in this report and that the information is true, complete, and accurate.

DRC Operator or Designee's Signature: _____

Certificate #: _____ Grade: _____ Date: _____

**SURFACE WATER/INFLUENCED GROUNDWATER MONTHLY OPERATION REPORT
IOWA DNR WATER SUPPLY SECTION**

Summary Page 2 of 2

5. INDIVIDUAL FILTER EFFLUENT PERFORMANCE SUMMARY

Criteria	Filter No.							
a. Number of days with event(s) @ 4 hours above 0.5 NTU this month								
b. Number of days with event(s) above 1.0 NTU this month								
c. Number of days with event(s) above 1.0 NTU last month								
d. Number of days with event(s) above 1.0 NTU two month ago								
e. Total number of days with event(s) above 1.0 NTU in three months								
f. Number of days with event(s) above 2.0 NTU this month								
g. Number of days with event(s) above 2.0 NTU last month								

For events documented in Items a & b, a filter profile report must be produced within 7 days or provide explanation of cause of event.

For events documented in Items e, a self-assessment report must be prepared within 14 days.

For events documented in Item g, a Comprehensive Performance Evaluation by the Department or its designee is required within 30 days.

NOTE: An "event" is considered to be two consecutive turbidity readings taken 15 minutes apart.

SURFACE WATER/INFLUENCED GROUNDWATER MONTHLY OPERATION REPORT

IOWA DNR WATER SUPPLY SECTION

Chlorine Dioxide/Chlorite Supplemental Monitoring Page

S/EP: _____

SYSTEM NAME: _____

PWSID #: _____

MONTH: _____

YEAR: _____

Monthly Chlorine Dioxide Daily MRDL Exceedance

NOTE: This monitoring must follow the written sampling plan.

Event:	1	2	3	4	5	6
Date S/EP sample exceeded 0.8 mg/L:						
Measured Level:						

Event	Following days results:	Date	Time	Location	Level			
1	Source/Entry Point:			S/EP		Was MRDL	Non-acute	Acute
	Distribution (3):					Exceeded?	Violation	Violation*
						(Yes/No)	(Yes/No)	(Yes/No)
2	Source/Entry Point:			S/EP		Was MRDL	Non-acute	Acute
	Distribution (3):					Exceeded?	Violation	Violation
						(Yes/No)	(Yes/No)	(Yes/No)
3	Source/Entry Point:			S/EP		Was MRDL	Non-acute	Acute
	Distribution (3):					Exceeded?	Violation	Violation*
						(Yes/No)	(Yes/No)	(Yes/No)
4	Source/Entry Point:			S/EP		Was MRDL	Non-acute	Acute
	Distribution (3):					Exceeded?	Violation	Violation*
						(Yes/No)	(Yes/No)	(Yes/No)
5	Source/Entry Point:			S/EP		Was MRDL	Non-acute	Acute
	Distribution (3):					Exceeded?	Violation	Violation*
						(Yes/No)	(Yes/No)	(Yes/No)
6	Source/Entry Point:			S/EP		Was MRDL	Non-acute	Acute
	Distribution (3):					Exceeded?	Violation	Violation*
						(Yes/No)	(Yes/No)	(Yes/No)

*For each **Acute** violation event, provide the following information:

Event:	1	2	3	4	5	6
Date & Time DNR Notified:						
Person Notified:						

Monthly Chlorite Daily MCL Exceedance

Did daily S/EP monitoring exceed MCL of 1.0 mg/L (Yes or No)? _____

Were three distribution samples collected the following day (Yes or No)? _____

What was the average of the three distribution samples? _____

Was a non-acute MCL violation incurred (Yes or No)? _____

I certify that I am familiar with the information contained in this report and that the information is true, complete, and accurate.

DRC Operator or Designee's Signature: _____

Certificate #: _____ Grade: _____ Date: _____

Total Organic Carbon (TOC) Removal

Year:

SURFACE WATER/INFLUENCED GROUNDWATER MONTHLY OPERATION REPORT FORM

IOWA DNR WATER SUPPLY SECTION

Alternative Compliance Criteria Report

Page 1 of 2

S/EP #: _____

System Name: _____

PWSID #: _____

Month: _____ Year: _____

This Alternative Compliance Criteria (ACC) Report is being submitted to request the following ACC: (check one)

#1 ☐ #2 ☐ #3 ☐ #4 ☐ #5 ☐ #6 ☐ #7 ☐ #8 ☐

#1	Source Water TOC less than 2.0 mg/L? (calculated quarterly as a running annual average)												
		1	2	3	4	5	6	7	8	9	10	11	12
	Actual Month/Yr												
	Monthly TOC												
	RAA												

#2	Treated Water TOC less than 2.0 mg/L? (calculated quarterly as a running annual average)												
		1	2	3	4	5	6	7	8	9	10	11	12
	Actual Month/Yr												
	Monthly TOC												
	RAA												

#3	Source Water TOC less than 4.0 mg/L? (calculated quarterly as a running annual average)													
	AND Source water alkalinity over 60 mg/L (as CaCO ₃)? (calculated quarterly as a running annual average)													
		1	2	3	4	5	6	7	8	9	10	11	12	
	Actual Month/Yr													
	Monthly TOC													
	RAA TOC													
	Monthly Alkalinity													
	Avg. RAA Alkalinity													
	Max.													
	Min.													
Yearly Average TTHM: <input type="text"/> mg/L Yearly Average HAA5: <input type="text"/> mg/L														
ATTACH COPY OF COMPLIANCE REPORT FOR DISINFECTION BY-PRODUCTS (TTHM AND HAA5)														

#4	TTHM and HAA5 no greater than 0.040 mg/L and 0.030 mg/L, respectively?												
	Yearly Average TTHM: <input type="text"/> mg/L Yearly Average HAA5: <input type="text"/> mg/L												
	ATTACH COPY OF COMPLIANCE REPORT FOR DISINFECTION BY-PRODUCTS (TTHM AND HAA5)												
	AND only chlorine is used in the whole plant and distribution system.												
	I certify that for the last 12 months, only free chlorine was used as a disinfectant for primary disinfection and for maintenance of a residual in the distribution system.												
Certified Operators Signature: _____													
Certification #: _____													
Date: _____													

SURFACE WATER/INFLUENCED GROUNDWATER MONTHLY OPERATION REPORT FORM

IOWA DNR WATER SUPPLY SECTION

Alternative Compliance Criteria Report

Page 2 of 2

# 5	Source water SUVA less than or equal to 2.0 L/mg-m? (calculated quarterly as a running annual average)												
	<small>(Source water SUVA is the ultraviolet light absorption at 254 nanometers divided by the dissolved organic carbon concentration in the source water before any treatment of any kind. Measure monthly.)</small>												
		1	2	3	4	5	6	7	8	9	10	11	12
	Actual Month/Year												
	Monthly SUVA												
	RAA SUVA												

#6	Treated water SUVA less than or equal to 2.0 L/mg-m? (calculated quarterly as a running annual average)												
	<small>(Treated water SUVA is the ultraviolet light absorption at 254 nanometers in the finished water divided by the dissolved organic carbon concentration before any disinfection of any kind. Measured monthly)</small>												
		1	2	3	4	5	6	7	8	9	10	11	12
	Actual Month-Year												
	Monthly SUVA												
	RAA SUVA												

System must be practicing Softening for use of ACC #7 & #8

#7	Treated water alkalinity less than 60 mg/L (as CaCO₃)? (calculated quarterly as a running annual average)																					
		1	2	3	4	5	6	7	8	9	10	11	12									
	Actual Month-Year																					
	Monthly Treated Alkalinity																					
	RAA Treated Alk.																					
AND cannot achieve the Step 1 TOC removal																						
Step 1 Compliance Summary:																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="3" style="text-align: center;">TOC % Removal Summary</th> </tr> <tr> <td style="width: 33%; text-align: center;">TOC % Removal</td> <td style="width: 33%; text-align: center;">Requirement</td> <td style="width: 33%; text-align: center;">TOC Removal Ratio</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>														TOC % Removal Summary			TOC % Removal	Requirement	TOC Removal Ratio			
TOC % Removal Summary																						
TOC % Removal	Requirement	TOC Removal Ratio																				

#8	Magnesium hardness removal greater than or equal																					
		1	2	3	4	5	6	7	8	9	10	11	12									
	Actual Month-Year																					
	Monthly Raw Mg. Hardness																					
	Monthly Treated Mg. Hardness																					
	Monthly Mg Removal																					
	RAA Mg Removal																					
AND cannot achieve the Step 1 TOC removal																						
Step 1 Compliance Summary:																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="3" style="text-align: center;">TOC % Removal Summary</th> </tr> <tr> <td style="width: 33%; text-align: center;">TOC % Removal</td> <td style="width: 33%; text-align: center;">Requirement</td> <td style="width: 33%; text-align: center;">TOC Removal Ratio</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>														TOC % Removal Summary			TOC % Removal	Requirement	TOC Removal Ratio			
TOC % Removal Summary																						
TOC % Removal	Requirement	TOC Removal Ratio																				

I certify that I am familiar with the information contained in this report and that the information is true, complete, and accurate.

DRC Operator or Designee's Signature: _____

Certificate #: _____ Grade: _____ Date: _____

SURFACE WATER/INFLUENCED GROUNDWATER MONTHLY OPERATION REPORT FORM

IOWA DNR WATER SUPPLY SECTION

STEP 2 JAR TEST REPORT

S/EP #: _____

System Name: _____ PWSID #: _____ Month: _____ Year: _____

CURRENT OPERATING CONDITIONS

COAGULANT BEING USED	_____		
COAGULANT CONC.	_____	%	
COAGULANT FEED RATE	_____	LBS/DAY	
RAW WATER FLOW RATE	_____	GPM	

Maximum Allowable Alum Dose in Jar 1: _____ mg/L

DOSING SOLUTION CALCULATIONS

COAGULANT USED TO MAKE THE DOSING SOLUTION:	(Aluminum Sulfate, Ferric chloride,...) _____	SIZE OF THE JAR TEST JARS:	_____ L
---	---	----------------------------	---------

Other Dry Coagulants

Coagulant	_____
Chemical Formula	_____
Molecular Formula	_____
Molecular Weight	_____
Cationic Charge	_____

Other Liquid Coagulants

Coagulant	_____
Chemical Formula	_____
Molecular Formula	_____
Molecular Weight	_____
Cationic Charge	_____

AMOUNT OF COAGULANT NEEDED TO MAKE 1 L OF DOSING SOLUTION: _____ mls or grams

Max.

Min. STEP 2 JAR TEST PARAMETERS

COAGULANT		BASE		MIXING CONDITIONS				
Type	Dosing Solution Concentration (g/L)	Concentration		Rapid Mix		Flocculation		Settling
		Type	(g/L)	Speed (rpm)	Duration (minutes)	Speed (rpm)	Duration (minutes)	Duration (minutes)

PERFORMANCE DATA

Jar No.	COAGULANT		BASE		Alkalinity (mg/Las CaCO3)	pH	TOC (mg/L)	Incremental TOC Removal (mg/L)	TOC Removal (%)
	Dose (mg/L)	Volume (mL)	Dose (mg/L)	Volume (mL)					
RAW									
Monthly Avg.:									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									

I certify that I am familiar with the information contained in this report and that the information is true, complete, and accurate.

DRC Operator or Designee's Signature: _____

Certificate #: _____ Grade: _____ Date: _____